

Diagnosis and Pathology Involved in Hodgkin Lymphoma (HL)

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DESCRIPTION

Hodgkin lymphoma (HL) is a type of lymphoma develops when Reed-Sternberg cells containing multiple nuclei (RS cells), which are found in the patient's lymph nodes, develop into malignancy. Classic Hodgkin lymphoma and nodular lymphocyte-predominant Hodgkin lymphoma are the 2 major types of the disease [1]. Stem cell transplant, radiation therapy, and chemotherapy are all methods for treating Hodgkin lymphoma. The cancer's phase has favorable characteristics that influence the treatment frequently.

Symptoms

The most common symptom of Hodgkin's lymphoma is swelling in the areas of the body where lymph nodes are present. Although the swelling is usually painless, it can cause an aching sensation in some individuals. More general symptoms include Fever, Weight loss, Night sweats, Fatigue, Coughing and Itchy skin. Night sweats, fever, and weight loss are the three symptoms that are most frequently experienced and are referred to as "B symptoms."

Diagnosis

Hodgkin lymphoma must be separated from non-cancerous causes for lymph node swelling (such different infections). Lymph node biopsy is essential for the final diagnosis (usually excisional biopsy with microscopic examination) [2]. Blood tests are also conducted to evaluate the condition of the major organs and the safety of chemotherapy. Small deposits are found through Positron Emission Tomography (PET), which does not show up on CT scanning. Functional imaging can also improve from adopting PET scans (by using a radiolabeled glucose to image tissues of high metabolism). An alternate to a PET scan in some conditions is a gallium scan.

Pathology

Pathology of a Hodgkin lymphoma can be carried out through macroscopic appearance and Microscopic appearance. Hodgkin lymphoma results from the clonal transformation of cells of B-

cell origin, giving rise to pathognomic binucleated Reed-Sternberg cells [3].

Macroscopic appearance: The laterocervical lymph nodes in the side of the neck are often enlarged, although their shape is usually preserved since the cancer does not invade the outer capsule of the lymph nodes. When the surface of an affected lymph node is open, the tissue is in a white grey colour and uniform.

Microscopic appearance: When the lymph node is examined under a microscope, Reed-Sternberg cells may be partially or completely scattered among a background of reactive lymphocytes, plasmocytes, eosinophils, granulocytes, and histiocytes. It is still unclear whether Sternberg-Reed cells are the sole malignant cells present to which extent these other cells are mainly adaptive [4]. However, histology experts do agree that the Reed-Sternberg cells or a variant of these cells needs to be identified in a biopsy in order for a diagnosis of Hodgkin's lymphoma to be confirmed. The Reed-Sternberg cells are typically 20 to 50 m in size, with an eosinophilic nucleus, a thick nuclear membrane, and a finely granular and uniform cytoplasm [5].

CONCLUSION

Alzheimer's disease is the most common type of dementia and typically manifests through a progressive loss of memory and cognitive function. Acquired factors such as cerebrovascular diseases, diabetes, hypertension, obesity and dyslipidemia increase the risk of AD development. Hodgkin lymphoma must be distinguished from non-cancerous causes of lymph node swelling (such as various infections) and from other types of cancer. Definitive diagnosis is by lymph node biopsy. Blood tests are also performed to assess function of major organs and to assess safety and the pathology of this disease is carried through Microscopic and macroscopic appearance.

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